UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JEFFREY SCOTT EDER

Appeal 2007-2745
Application 09/761,671
Technology Center 3600

Decided: August 29, 2007

Before TERRY J. OWENS, HUBERT C. LORIN, and ANTON W. FETTING, *Administrative Patent Judges.*

FETTING, *Administrative Patent Judge.*

DECISION ON APPEAL

STATEMENT OF CASE

Jeffrey Scott Eder (Appellant) seeks review under 35 U.S.C. § 134 of a Final rejection of claims 69-103, the only claims pending in the application on appeal.

We have jurisdiction over the appeal pursuant to 35 U.S.C. § 6.

We AFFIRM.

The Appellant invented a way to calculate and display a forecast of the impact of user-specified or system generated changes in business value drivers on the other value drivers, the elements, the components, the financial performance and the long term value of a commercial enterprise that utilizes the information from a detailed valuation of the enterprise (Specification 9:2-7).

An understanding of the invention can be derived from a reading of exemplary claim 69, which is reproduced below [bracketed matter and some paragraphing added].

> 69. A current operation modeling method, comprising:
>
> [1]
>
> [a] integrating transaction data
>
> > [i] for a commercial enterprise
> >
> > [ii] in accordance with a common data dictionary;
>
> [b] using a neural network model
>
> > [i] to identify one or more value driver candidates
> >
> > [ii] for each of one or more elements of value from said data,
>
> [c] using an induction model
>
> > [i] to identify one or more value drivers from said candidates and
> >
> > [ii] define a contribution summary
> >
> > > [1] for each element of value
> > >
> > > [2] for each of one or more aspects of a current operation financial performance
> > >
> > > [3] using said value drivers, and
>
> [d] creating a plurality of network models
>
> > [i] that connect the elements of value
> >
> > [ii] to aspects of current operation financial performance

[iii] using said contribution summaries

[2]

[a] where the elements of value are selected from the group consisting of

[i] brands,

[ii] customers,

[iii] employees,

[iv] intellectual capital,

[v] partners,

[vi] vendors,

[vii] vendor relationships and

[viii] combinations thereof,

[b] where the induction models are selected from the group consisting of

[i] lagrange,

[ii] path analysis and

[iii] entropy minimization,

[c] where the network models support automated analysis through computational techniques and

[d] where the aspects of current operation financial performance are selected from the group consisting of

[i] revenue,

[ii] expense,

[iii] capital change,

[iv] cash flow,

[v] future value,

[vi] value and

[vii] combinations thereof.

This appeal arises from the Examiner's Final Rejection, mailed June 13, 2006. The Appellant filed an Appeal Brief in support of the appeal on October 3, 2006. An Examiner's Answer to the Appeal Brief was mailed on January 9, 2007. A Reply Brief was filed on January 27, 2007.

PRIOR ART

The Examiner relies upon the following prior art:

Daniel W. Bielinski, *How to sort out the premium drivers of post-deal value*, Mergers and Acquisitions, Jul/Aug 1993, Vol. 28, Iss. 1, pg. 33, 5 pgs. (Bielinski)

Carol E. Brown, James Coakley, and Mary Ellen Phillips, *Neural networks enter the world of management accounting*, Management Accounting, May 1995, Vol. 76, Iss. 11, p. 51, 5 pgs. (Brown)

The Appellant relies upon the following prior art, already of record:

Alfred Rappaport, *Creating Shareholder Value*, A Guide for Managers and Investors, pp. 39, 70, 171, and 172, ISBN 0-684-84410-9, 1998 (Rappaport)

REJECTION

Claims 69-103 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Bielinski and Brown.

ISSUES

Thus, the issue pertinent to this appeal is whether the Appellant has sustained its burden of showing that the Examiner erred in rejecting claims 69-103 under 35 U.S.C. § 103(a) as unpatentable over Bielinski and Brown.

FACTS PERTINENT TO THE ISSUES

The following enumerated Findings of Fact (FF) are believed to be supported by a preponderance of the evidence.

Claim Construction

01. Entropy minimization is an induction algorithm that, starting with nothing, adds variable to composite variable formula as long as they increase the explainability [sic] of result (Specification, 47:Table 23).

02. LaGrange is an induction algorithm that is designed to identify the behavior of dynamic systems and uses linear regression of the time derivatives of the system variables (Specification, 47:Table 23).

03. Path Analysis is an induction algorithm that is essentially equivalent to multiple linear regression that finds the least squares rule for more than one predictor variable (Specification, 47:Table 23).

Bielinski

04. Bielinski is directed towards describing how Value Based Management (VBM), an advancement in discounted cash flow modeling, centers on what specific steps can be taken operationally and strategically to add value to a target organization (Bielinski, 1:Abstract).

05. Bielinski describes how sensitivity analysis of past results offers clues to what can be done in the future and which value drivers should receive the most attention to achieve optimal rewards. The VBM technique allows the analyst to figure key decision making trade-offs, since attention to one driver may generate negative effects on others or 2 or

more drivers may have to be varied in concert to produce the best results (Bielinski, 1:Abstract).

06. Bielinski describes Value-Based Management (VBM), which keys on a target's historical operations rather than future projections. VBM also can calculate the results of trade-offs when decision makers must choose between a series of factors that can be changed to enhance post acquisition value (Bielinski, 1:Bottom ¶ - 2:Top line).

07. Bielinski describes the best-known valuation tool designed to facilitate value creation and cash flow enhancement as Shareholder Value Analysis (SVA), introduced in the 1980s by Prof. Alfred Rappaport of Northwestern University (Bielinski, 2:First full ¶).

08. SVA may be defined as a two-step process. First, a discounted cash flow business valuation is performed. A projection of future cash flow (including a residual) is developed and discounted at an appropriate rate, usually the cost of capital, to arrive at an indicated value. Second, key factors (or value drivers), such as growth, profit margins, etc., are varied systematically to test the sensitivity of the indicated business value to each driver. Standard SVA sensitivity analysis changes each value driver plus or minus 1%, although analysts now often use "relevant ranges" and different percentages for upside and downside swings to reflect prevailing business realities (Bielinski, 2:First full ¶).

09. SVA has limitations often magnified into constraints that necessitate modifying standard SVA analysis. Thus, Rappaport describes and distinguishes VBM, a first cousin to SVA, which has resulted from these modifications. Bielinski provides an abbreviated overview of VBM and

describes how it differs from the traditional SVA framework (Bielinski, 2:Second and third full ¶'s).

10. Rather than use projections of future cash flow like SVA, the VBM framework utilizes historical cash flow. Five years of historical cash flow are added up to arrive at a cumulative baseline cash flow number. That is in contrast to SVA's method of discounting future cash flows to reach an indicated value. Instead of testing the sensitivity of a value based on a projection, VBM tests the sensitivity of the historical cash flow. VBM tells the executive how much more or less cash flow would be in the bank today if certain events had occurred differently or if the company had operated differently in the past five years (Bielinski, 2:Fifth and sixth full ¶'s).

11. The use of actual historical data, rather than projections, has proven useful in testing the impact of alternative scenarios against the reality of actual events. It also has served as a catalyst to identify and implement actions that generate improvements. As long as a company's fundamental structure does not change going forward, the results provide meaningful insight regarding the probable outcomes of future strategic action, to the extent that risk is not increased, an executive may reasonably assume that an increase from historical cash flow trends likely would translate into enhanced value (Bielinski, 2:Seventh full ¶).

12. VBM utilizes drivers that are more directly linked to operations. For example, rather than use operating profit margin as a broad value driver, a VBM analysis on a manufacturer would include a breakdown of cost of goods sold by key components (Bielinski, 2:Eighth full ¶).

13. Bielinski provides an example of a mix for VRM analysis including materials, human resources, technology and capital, and other costs of goods sold as value drivers (Bielinski, 2:Bottom five full ¶'s).

14. VBM essentially utilizes SVA principles but advances the basic techniques by incorporating historical data, operations-linked value drivers, and concurrent changes in multiple value-drivers (Bielinski, 3:Third full ¶).

15. Bielinski shows the sensitivity of the baseline cash flow to changes in key factors. Showing how results might have turned out differently if operating or strategic changes been effected in the recent past suggests improvements that can be made in the future (Bielinski, 3:Sixth full ¶).

16. Sensitivity analysis can show how changes in key cost and operating components can impact cash flow. One striking conclusion is that the areas where the big dollars are do not always offer the greatest opportunities to improve cash flow and value (Bielinski, 3:Seventh and eighth full ¶).

17. Bielinski describes how SVA can tie strategic changes directly to manufacturing by future initiatives to control costs, eliminating overspecification and establishing better value chain management (Bielinski, 3:Bottom ¶).

18. And if both the acquirer and target utilize VBM in constructing a projection, the two sides might come close to reaching a consensus on what constitutes a "realistic" projection of future performance (Bielinski, 4:Bottom ¶).

19. With VBM, sensitivity analysis of past results offers clues to what can be done in the future and which value drives - e.g., sales growth, profit margins, productivity, etc. - should receive the most attention to achieve the optimal rewards. Additionally, the VBM technique allows the analyst to figure key decision making trade-offs, since attention to one driver may generate negative effects on others or two or more drivers may have to be varied in concert to produce the best results (Bielinski, 5:Keys to creating value).

Brown

20. Brown is an accounting journal article describing how artificial intelligence (AI) is implemented in business practices. Three of the most common methods parallel the way people reason: rules (inference procedures), cases (case-based reasoning), and pattern matching (neural networks). These methods may be used separately or in combination and currently are being used to solve a variety of business tasks (Brown 51:Left col., Bottom ¶ - Center col.).

21. Neural networks use pattern matching. The financial services industry with its large databases has fielded several successful neural network applications, and neural networks based on information about customers or potential customers have proved effective. If large databases exist with which to train a neural network, then use of that technology should be considered. For a neural network the large database can be used as the equivalent of the human expert (Brown 52:Center col., Second ¶).

22. Neural networks are used for forecasting future sales and prices, estimating future costs, and planning future schedules and expenditures (Brown 53:Left col., Forecasting and Scheduling).

23. An air carrier's improved scheduling makes aircraft operations more predictable, reduces delays, and reduces fuel costs by shortening the time aircraft spend waiting for available gates. More efficient scheduling raises the number of flights by each aircraft, increases revenue, provides better management of disruptions, and improves passenger service (Brown 53:Left col.-middle col., Forecasting and Scheduling).

24. A provider of hospital supplies, uses a neural network to identify the key characteristics of the best customers and searches the inactive customer list for the highest probability purchasers from those who are inactive. Neural networks also help with customer service and support (Brown 53:Center col., First full ¶).

25. As businesses reorganize based on customer needs, neural networks can help them analyze past business transactions so they can understand their customers' buying patterns. One neural network for database mining has been tailored for database marketing (Brown 53:Center col., Second full ¶).

26. Many systems also have been developed to help investors and investment companies manage investments in securities. One company has a neural network it uses as a decision aid in stock purchases for mutual funds. The neural network makes a very accurate forecast about 10% of the time; the other 90% of the time it makes no forecast at all. Another company uses a neural network to manage the $100 million

equity portfolio of its pension fund. Forty indicators are used to rank the expected future returns of 1,000 equities. Currently owned stocks are sold and are replaced by those with future return rating over a certain cutoff, which results in an 80% monthly turnover. The portfolio return, net of transaction costs, exceeds that of the Standard & Poor's 500 index. Other firms use neural network to predict the S & P 500 index and the performance of stocks and bonds to help market traders in making their buy, hold, and sell decisions. The system recognizes patterns in market activity before they are apparent to a human, which may mean millions in trading profits (Brown 56:Center col., Investments).

Rappaport

27. Rappaport describes techniques for creating shareholder value (Rappaport Title).

28. A component of the cost of equity is a risk premium. One way of estimating the risk premium for a particular stock is by computing the product of the market risk premium for equity (the excess of the expected rate of return on a representative market index such as the Standard & Poor's 500 stock index over the risk-free rate) and the individual security's systematic risk, as measured by its beta coefficient (Rappaport 39:Middle full ¶).

29. Rappaport teaches that three factors determine stock prices: cash flows, a long-term forecast of these cash flows, and the cost of capital or discount rate that reflects the relative risk of a company's cash flows. The present value of a company's future cash flows, not its quarterly earnings, determines its stock price (Rappaport 70:Last full ¶).

30. Rappaport teaches that business value depends on seven financial value drivers: sales growth, operating profit margin, incremental fixed capital investment, incremental working capital investment, cash tax rate, cost of capital, and value growth duration. While these drivers are critical in determining the value of any business, they are too broad to be useful for many operating decisions. To be useful, operating managers must establish for each business the micro value drivers that influence the seven financial or macro value drivers.

31. Rappaport teaches that an assessment of these micro value drivers at the business unit level allows management to focus on those activities that maximize value and to eliminate costly investment of resources in activities that provide marginal or no potential for creating value. Value driver analysis is a critical step in the search for strategic initiatives with the highest value-creation leverage. Isolating these key micro value drivers enables management to target business unit operations that have the most significant value impact and those most easily controlled by management.

32. Rappaport teaches that the first step of a value driver analysis is to develop a value driver "map" of the business. This involves identifying the micro value drivers that impact sales growth, operating profit margins, and investment requirements. Armed with a better understanding of micro value driver relationships, the next step is to identify the drivers that have the greatest impact on value.

33. Rappaport provides an illustrative table (Rappaport 172:Figure 9-3. Micro and Macro Value Drivers) that presents the sensitivity of

shareholder value to changes in selected drivers for retail as well as industrial marketing (Rappaport 172:Top ¶).

34. Rappaport teaches that most managers believe they can identify the key drivers for their business. However, these drivers may in many cases be appropriate for a short-term-earnings-driven business rather than an organization searching for long-term value, Experience shows that value driver sensitivities are not always obvious. Therefore, quantifying sensitivities is a valuable exercise for both operating and senior management (Rappaport 172:First full ¶).

PRINCIPLES OF LAW

Claim Construction

During examination of a patent application, pending claims are given their broadest reasonable construction consistent with the specification. *In re Prater*, 415 F.2d 1393, 1404-05, 162 USPQ 541, 550 (CCPA 1969); *In re Am. Acad. of Sci. Tech Ctr.*, 367 F.3d 1359, 1364, (Fed. Cir. 2004).

Although a patent applicant is entitled to be his or her own lexicographer of patent claim terms, in *ex parte* prosecution it must be within limits. *In re Corr*, 347 F.2d 578, 580, 146 USPQ 69, 70 (CCPA 1965). The applicant must do so by placing such definitions in the Specification with sufficient clarity to provide a person of ordinary skill in the art with clear and precise notice of the meaning that is to be construed. *See also In re Paulsen*, 30 F.3d 1475, 1480, 31 USPQ2d 1671, 1674 (Fed. Cir. 1994) (although an inventor is free to define the specific terms used to describe the invention, this must be done with reasonable clarity, deliberateness, and precision; where an inventor chooses to give terms uncommon meanings, the inventor must set out any uncommon definition in some manner

within the patent disclosure so as to give one of ordinary skill in the art notice of the change).

Obviousness

A claimed invention is unpatentable if the differences between it and the prior art are "such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art." 35 U.S.C. § 103(a) (2000); *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1734, 82 USPQ2d 1385, 1391 (2007); *Graham v. John Deere Co.*, 383 U.S. 1, 13-14, 148 USPQ 459, 466 (1966).

In *Graham*, the Court held that that the obviousness analysis is bottomed on several basic factual inquiries: "[(1)] the scope and content of the prior art are to be determined; [(2)] differences between the prior art and the claims at issue are to be ascertained; and [(3)] the level of ordinary skill in the pertinent art resolved." 383 U.S. at 17, 148 USPQ at 467. *See also KSR Int'l v. Teleflex Inc.*, 127 S.Ct. at 1734, 82 USPQ2d at 1391. "The combination of familiar elements according to known methods is likely to be obvious when it does no more than yield predictable results." *Id.* 127 S.Ct. at 1739, 82 USPQ2d at 1395.

"When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or in a different one. If a person of ordinary skill in the art can implement a predictable variation, § 103 likely bars its patentability." *Id.* 127 S. Ct. at 1740, USPQ2d at 1396.

"For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve

similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill." *Id.*

"Under the correct analysis, any need or problem known in the field of endeavor at the time of invention and addressed by the patent can provide a reason for combining the elements in the manner claimed." 127 S. Ct. at 1742, USPQ2d at 1397.

ANALYSIS

Claims 69-103 rejected under 35 U.S.C. § 103(a) as unpatentable over Bielinski and Brown.

The Appellant argues these claims as a group. Although the Appellant nominally contends each of the independent claims individually, each of the contentions for the remaining independent claims refers back to the arguments for claim 69.

Accordingly, we select claim 69 as representative of the group. 37 C.F.R. § 41.37(c(1)(vii) (2006).

We initially construe claim 69. We find that claim 69 is divided into two parts, [1] and [2]. Part [1] recites the method steps, which, overall perform element [1.a] integrating data, by step [1.b] using a neural network model to identify a fist set of candidates, from which step [1.c] further identifies a set of drivers, and defines a set of contribution summaries, finally, in step [1.d] creating network models with the summaries. Thus, claim 69 contains three steps, [1.b-d] that are employed within step [1.a]. Steps [1.b-d] are necessarily sequential because each of [1.c] and [1.d] requires output from the preceding step. Part [2] identifies components used

in the steps in part [1], and thus limits the terms those components are used in within part [1].

The Examiner found that Bielinski describes all of the elements of claim 69 except for the use of neural network models using the indicators and a portion of the data to identify value driver candidates. To overcome this deficiency, the Examiner found that Brown described valuation using neural networks and training neural network models for aspects of financial performance using indicators. The Examiner concluded that it would have been obvious to a person of ordinary skill in the art to have combined Bielinski and Brown to take advantage of neural networks to increase accuracy of models (Answer 3:Bottom ¶ - 4:Full page).

The Appellant contends that Bielinski[1] and Brown: (1) teach away from the proposed combination; (2) would require a change in operating principle; (3) if combined, would destroy the ability of one of the methods to function; (4) fails to make the invention as a whole obvious; and (5) fails to meet any of the criteria for establishing a prima facie case of obviousness (Br. 12:Third ¶).

Teaching Away

(1) The Appellant argues that Rappaport's description of only three market value determinants, is incompatible with Brown's forty determinants (Br. 12:Bottom ¶).

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[1] The Appellant relies on Rappaport to support many of its arguments regarding Bielinski, apparently treating Rappaport as having been incorporated by reference within Bielinski, based on Bielinski's described usage of Rappaport's Shareholder Value Analysis (Bielinski, 30:First full ¶). The Brief somewhat confusingly attributes text actually found in Rappaport to Bielinski. In this opinion, when we refer to Rappaport's text, based on either the Appellant's contentions, or on our own analysis and fact finding, we attribute that text to Rappaport.

We initially find that here, as throughout the arguments in the Brief, the Appellant has somewhat rhetorically attributed the teachings of Rappaport, and in particular certain assertions within Rappaport, to Bielinski as a device to discredit the combination of Bielinski and Brown. While Bielinski refers to the teachings of Rappaport, as we noted in footnote [1], this does not necessarily mean that everything taught and asserted by Rappaport is necessarily embraced by Bielinski's teachings. In particular, Bielinski distinguishes its VBM technique from Rappaport's SVA technique (FF 09).

As to the merits of the Appellant's argument, although Rappaport describes that three factors determine stock prices (FF 29), we find that Bielinski describes several market value drivers and implies there are more (FF 19). Also, we find that Bielinski describes drivers of varying scope (FF 12), such that the broadest drivers taught by Rappaport can be broken down into more drivers more directly linked to operations.

On the other hand, the forty indicators taught by Brown that the Appellant contends are incompatible relate to portfolio analysis across multiple companies (FF 26) rather than analysis of a single company as taught by Bielinski (FF 04). It is hardly surprising and totally irrelevant that an application comparing multiple companies might use more indicators than a single company.

The Appellant has not sustained its burden of showing the Examiner erred.

(2) The Appellant argues that Bielinski's teachings imply an efficient market, which is incompatible with an inefficient market implied by Rappaport (Br. 13:Top ¶).

The Appellant bases this argument again on Rappaport rather than Bielinski as such, pointing to Rappaport's description of a market risk quantifier, beta (FF 28).

The Appellant contrasts this with Brown's use of neural networks to select individual stocks in a portfolio (FF 26). Thus, the Appellant has, as in the previous argument, assigned an SVA teaching by Rappaport to Bielinski that is not necessarily applicable to Bielinski's VBA, and compared Bielinski's single company analysis to Brown's example of portfolio analysis. More to the point, we find there is nothing fundamentally incompatible between a measure of market risk and portfolio selection as suggested by the Appellant, particularly since it is widely known that the purpose of portfolios is to manage risk. None of the three references make any connection between their teachings and either an efficient or inefficient market hypothesis.

The Appellant has not sustained its burden of showing the Examiner erred.

(3) The Appellant argues that Bielinski's reliance on long term cash flow analysis is incompatible with Brown's short term analysis, and that Bielinski specifically teaches away from the use of projections for any aspect of analysis (Br. 13:Second ¶).

We again find that the Appellant compared Bielinski's single company analysis to Brown's example of portfolio analysis, as the short term analysis pointed to by the Appellant (Brown 56:reference to 80% monthly turnover) is again within the investment analysis examples of Brown.

We further find that the Appellant is conflating the two distinct operations performed by Bielinski's VBM. In particular, Bielinski first tests the sensitivity of long term historical cash flow to different operating assumptions about past operations (FF 10). Then Bielinski applies the results of this sensitivity analysis to future strategic action (FF 11). Contrary to the Appellant's contention, Bielinski specifically teaches the use of projections in this phase of the analysis.

Bielinski does not characterize the time frame for analysis of future action, but we find that such projected time frames typically include relatively short term time frames because of the inherent uncertainty in projections that increases with time frame. We further find that there is nothing in Bielinski that would suggest that the time frame for the projection phase of the analysis is incompatible with a shorter time frame.

The Appellant has not sustained its burden of showing the Examiner erred.

(4) The Appellant argues that Rappaport's use of a tree based model topology is incompatible with Brown's network topology (Br. 13:Third ¶).

The Appellant has made a broad contention of the incompatibility of these methods without a specific showing of the nature of their incompatibility. The Appellant bases this argument again on Rappaport rather than Bielinski as such, contending that Rappaport implicitly teaches a tree methodology. We find that nothing in Rappaport specifically refers to a tree based model topology. Rappaport presents a figure of a tree diagram to represent the hierarchical nature of organizational costs and activities (FF 33), but makes no representation as to how this is incorporated within the model.

Even if Bielinski's VBM were to employ a tree based methodology, we find nothing inconsistent with employing a neural network within each of the branches of the tree's analysis. Further, we find nothing incompatible with assigning neural network analysis to Bielinski's phase of finding driver candidates as in claim 69 element [1.b.] and assigning a tree based induction model to identify drivers as in element [1.c.]. The Appellant has not made any contention otherwise.

The Appellant has not sustained its burden of showing the Examiner erred.

(5) The Appellant argues that Bielinski's usage of sensitivity analysis is incompatible with Brown's neural network scoring for the same data (Br. 13:Bottom ¶).

We again find that the Appellant compared Bielinski's single company analysis to Brown's example of portfolio analysis, as the scoring pointed to by the Appellant (Brown 56:reference to ranking of future returns of stocks) is again within the investment analysis examples of Brown.

Further, Bielinski applies the results of its sensitivity analysis to future strategic action (FF 11). Similarly, Brown applies its results to future strategic actions (FF 22). We find nothing incompatible between using the results of sensitivity analysis, their implications for future actions, and the results of neural networks for suggesting future actions.

The Appellant goes on to argue that Bielinski and Brown are measuring the same thing and there would be no point in using two methodologies to measure the same thing (Br. 13:Bottom ¶). We find this is not an argument of incompatibility, but of so much compatibility as to be redundant. We further find that Bielinski and Brown base their analysis on different inputs (Bielinski using cash flows and Brown using large databases) and the use of different analytical methods to converge on a common result to reduce uncertainty is widely known and applied.

The Appellant has not sustained its burden of showing the Examiner erred.

Changing Principle of Operation

The Appellant argues that Bielinski and Rappaport's Shareholder Value Analysis (SVA) would change Brown's neural network because it would use a tree based analysis, acknowledge that the efficient market theory does not explain all

value changes, and acknowledge that cash flow explains only a portion of the value of an enterprise (Br. 14:Top ¶). The Appellant further argue that Bielinski's Value Based Management (VBM) would change Brown's strict reliance on historical cash flow and the related prohibition against using projections of any kind (Br. 14:Second ¶).

We find that these contentions are all repetitions of those made under the rubric of teaching away, *supra*, but couched as changing principles of operation, and our findings are the same. The Appellant has made no contention specifically demonstrating that the combination of Bielinske and Brown would necessarily change the principles of their operation, particularly since Brown's neural network might be used in performance of element [1.b.] and Bielinski's VBM in performance of [1.c.] of claim 69, thus not requiring any overlap of their operation.

The Appellant has not sustained its burden of showing the Examiner erred.

Destruction of Ability to Function

The Appellant argues that VBM requires that inputs to each node in a tree arithmetically combine to produce an input to a higher level in the tree. The Appellant contends that use of a neural network would destroy the ability to arithmetically generate the numbers required at each tree node. The Appellant similarly contends that the use of a tree would destroy the neural network's ability to function (Br. 14:Bottom ¶ - 15:Top ¶).

We find that these contentions are all repetitions of those made under the rubric of teaching away, *supra*, but couched as destroying the ability to function, and our findings are the same. The Appellant has made no contention specifically demonstrating that the combination of Bielinske and Brown would necessarily destroy the abilities of their operation, particularly since Brown's neural network

might be used in performance of element [1.b.] and Bielinski's VBM in performance of [1.c.] of claim 69, thus not requiring any overlap of their operation.

The Appellant has not sustained its burden of showing the Examiner erred.

Failure to Make Invention as a Whole Obvious

The Appellant repeats the arguments regarding teaching away and concludes that the invention is therefore not obvious as a whole (Br. 15:First full ¶).

We find that these contentions are all repetitions of those made under the rubric of teaching away, *supra*, but couched as making the invention as a whole obvious, and our findings are the same.

The Appellant has not sustained its burden of showing the Examiner erred.

Failure to Make Prima Facie Case for Obviousness

The Appellant argues (1) there is no evidence for the motivation to combine the references; (2) there is no reasonable expectation of success for the same reasons the combination would destroy their ability to function; and (3) the combination fails to include optimization techniques (Br. 15:Bottom ¶ - 16:Top three ¶'s).

We find that both Bielinski and Brown describe analytical techniques employed to find drivers for improving organizational performance. Brown teaches that neural networks may be used to analyze past business transactions so they can understand customers' buying patterns, whereas Bielinski teaches how VBM sensitivity analysis of past results offers clues to what can be done in the future and which value drivers should receive the most attention to achieve optimal rewards. Thus both are directed towards analysis of past business operations to offer clues to changing future operations to improve business performance. It

would have been obvious to a person of ordinary skill in the art to have adapted techniques from each of Brown and Bielinski to provide the advantages of each technique in improving overall performance.

The Appellant has not sustained its burden of showing the Examiner erred.

Reply Brief

We find that the Appellant has made general allegations that the combination of Bielinski and Brown fails to teach or suggest any of the claim limitations of claims 77-103 for the first time in the Reply Brief. A statement which merely points out what a claim recites will not be considered an argument for separate patentability of the claim. 37 C.F.R. 41.37(c)(1)(vii). A general allegation that the art does not teach any of the claim limitations is no more than merely pointing out the claim limitations. Thus, these claims fall along with claim 69.

The Appellant has not sustained its burden of showing that the Examiner erred in rejecting claims 69-103 under 35 U.S.C. § 103(a) as unpatentable over Bielinski and Brown.

CONCLUSIONS OF LAW

The Appellant has not sustained its burden of showing that the Examiner erred in rejecting claims 69-103 under 35 U.S.C. § 103(a) as unpatentable over the prior art.

On this record, the Appellant is not entitled to a patent containing claims 69-103.

DECISION

To summarize, our decision is as follows:

- The rejection of claims 69-103 under 35 U.S.C. § 103(a) as unpatentable over Bielinski and Brown is sustained.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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